

comprising a promoter operably linked to a coding sequence as set forth in SEQ ID NO:2 encoding a maize ribosome inactivating protein comprising a recombinant mature RIP comprising an  $\alpha$  domain and a  $\beta$  domain arranged contiguously.

- III. Claims 1, 4, 8, 10-17 and 21-22, drawn to a method of producing a transformed plant by transforming a plant with a chimaeric gene comprising a promoter operably linked to a coding sequence as set forth in SEQ ID NO:3 encoding a maize ribosome inactivating protein comprising a recombinant RIP comprising as the active part the  $\alpha$  domain only.
- IV. Claims 1, 5, 9-17 and 21-22, drawn to a method of producing a transformed plant, cell and plant by transforming a plant with a chimaeric gene comprising a promoter operably linked to a coding sequence as set forth in SEQ ID NO:4 encoding a maize ribosome inactivating protein comprising a recombinant RIP comprising as the active part the  $\beta$  domain only.
- V. Claims 18-22, drawn to a method of producing a transformed plant by transforming a plant with a chimaeric gene comprising a first promoter operably linked to an  $\alpha$  domain of a maize ribosome inhibiting protein and a second promoter operably linked to a  $\beta$  domain of a maize ribosome inhibiting protein.
- VI. Claims 23 and 26, drawn to a DNA isolate of a chimaeric gene comprising a promoter operably linked to a coding sequence encoding a maize ribosome inactivating protein or a part thereof.
- VII. Claims 24-25 and 27, drawn to a DNA isolate of a chimaeric gene comprising a first promoter operably linked to a first domain of a maize ribosome inactivating protein and a second promoter operably linked to a second domain of a maize ribosome inactivating protein.

The Examiner contends that the inventions of Group I-VII are distinct, each from the other.

In response, Applicants provisionally elect with traverse to prosecute the invention of Group II, *i.e.*, claims 1, 3, 7, 10-17 and 21-22. With respect to the Examiner's restriction of the remaining inventions in Group I, III, IV, IV, and VI, Applicants traverse.

Applicants respectfully point out that the subject matters of claims 2, 3, 4, and 5, and dependent claims thereof are improperly classified in Groups I, II, III, and IV, since the claimed methods of claims 4 and 5 recite  $\alpha$  and  $\beta$  subunit fragments of the same protein claimed in claims 3 (mature-RIP), the biosynthetic precursor of which, pro-RIP, is in turn encompassed by claim 2 of Group I. Mature-RIP is formed by the removal of the N- and C-terminal extensions and the central spacer peptide of pro-RIP (see page 8, lines 9-12). Applicants refer to page 9, line 19 through page 10, line 4, of the specification which identifies the coding region of pro-RIP (SEQ ID NO:1); the mature-RIP (RIP-P) nucleotide sequence (SEQ ID NO:2); and the nucleotide sequences encoding the  $\alpha$  and  $\beta$  domain fragments of mature-RIP (SEQ ID NO:3 and 4).

Applicants further invite the Examiner's attention to the sequence listing which shows the relatedness of the sequences of Groups I, II, III, and IV: SEQ ID NO:1 provides the amino acid sequence of pro-RIP which encompasses the amino acid sequence of mature-RIP (SEQ ID NO:2, positions 4-438 and 439-744 which is identical to positions 58-483 and 559-864 respectively of SEQ ID NO:1); the amino acid sequence of RIP  $\alpha$  domain (SEQ ID NO:3, positions 4-438, which is identical to position 4-438 of SEQ ID NO:2 and positions 58-483 of SEQ ID NO: 1); and the amino acid sequence of RIP  $\beta$  domain (SEQ ID NO:4, positions 3-309, which is identical to position 439-744 of SEQ ID NO: 2 and positions 559-864 of SEQ ID NO:1). Thus, the sequences of mature-RIP, RIP  $\alpha$  domain and RIP  $\beta$  domain are clearly sub-sequences of the pro-RIP molecule of Group I. The inventions of Group I-III and IV are clearly not independent inventions.

Applicants also submit that the subject matter of claims 23 and 26, a DNA isolate of a chimaeric gene comprising a target specific promoter and a RIP coding sequence, and a biologically functional expression vehicle containing such a chimaeric gene are improperly classified in Group VI. For the Examiner to search the nucleic acid sequences encoding the RIP proteins of the methods of claims 1-4, she would necessarily search the nucleic acid sequences of the claimed DNA isolates.

Furthermore, contrary to the Examiner's assertion, the inventions of Groups I, II, III, IV, and VI rely on essentially the same function(s) resulting in the same effect of inducing a necrotic effect in plant target sites.

The groups of claims specified by the Examiner are not distinct inventions, but rather an intricate web of knowledge and continuity of effort which merit examination of all claims in a single application. Even assuming *arguendo* that Groups I-IV and VI represented distinct or independent inventions, Applicants submit that to search the subject matter of the five Groups together would not be a serious burden on the Examiner.

The M.P.E.P. §803 (Eighth Edition, August 2001) states:

If the search and examination of an entire application can be made without serious burden, the examiner 'must' examine it on the merits, even though it includes claims to distinct or independent inventions.

Thus, in view of the M.P.E.P. § 803, even if for arguments sake, the subject matter of Groups I, II, III, IV, and VI are distinct inventions, the subject matter of Groups I, III, IV, and VI would necessarily be searched and examined in the search of the subject matter of Group II and, therefore, would not be a "serious burden" on the Examiner.

Applicants respectfully request the Examiner to place claims 1-17, 21-23, and 26 within a single group. Accordingly, Applicants respectfully request that the restriction requirement be withdrawn and the instant claims be examined in one application.

Alternatively, Applicants respectfully request that the restriction requirement be modified such that Groups I, II, III, and IV are combined examined together in the instant application. Even assuming *arguendo* that Groups I-IV represent distinct or independent inventions, Applicants submit that the *same* subject matter would have to be searched for all of these Groups and thus combining them would not be a serious burden on the Examiner.

Thus, in view of M.P.E.P. §803, all of the claims of Groups I, II, III, IV, and VI should be searched and examined in the subject application.

Accordingly, Applicants respectfully request that the Restriction Requirement Under 35 U.S.C. §121 be traversed and the Claims 1-17, 21-23, and 26 be examined in one application. Applicants retain the right to petition from the restriction requirement under 37

C.F.R. § 1.144.

**CONCLUSION**

Applicants respectfully request that the foregoing remarks be entered and made of record in the file history of the application.

Respectfully submitted,

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Enclosures